# FOR EVERY TYPE OF BUILDING

# Better Heating

*from*

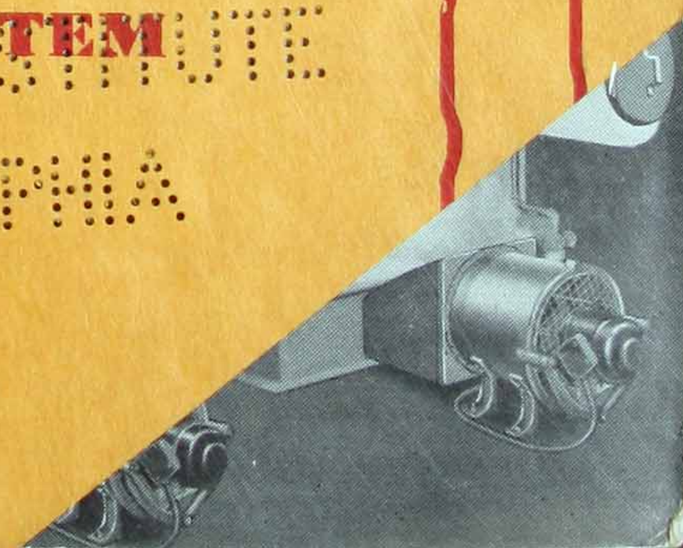
# LOW-COST COAL

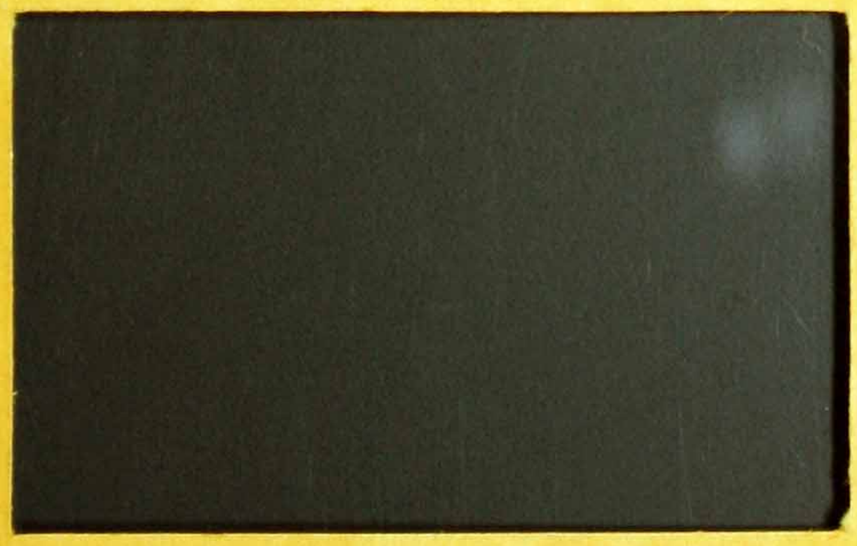
*with a*

**WING COMBUSTION CONTROL SYSTEM**



A.I.A. File No. 30-G-3





• It pays to study your heating costs •

For those who want
the finest heating service
at the lowest possible cost

The Woodrow Wilson High School, New Rochelle, N.Y., equipped with Wing Systems.

Wing installations in all the New Rochelle schools reduced fuel costs from $3.43 to $2.22 per 1,000 cu. ft. of building per year, saving the city over $20,000 annually.

**Confronting everyone responsible for the economical operation of a heating plant, whether it be large or small, there is a vital problem: "What fuel shall I burn, and how shall I burn it to get the simplest, least expensive, cleanest, and most reliable heating service?" Here is the answer:**

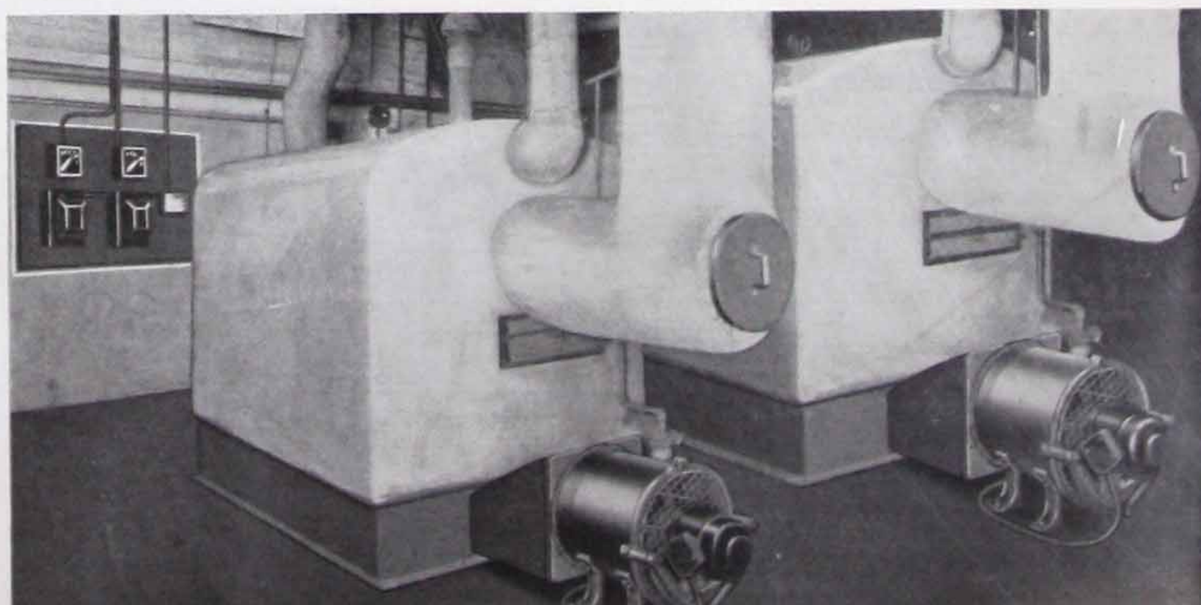
# Burn Small Anthracite Coal* with a Wing Combustion Control System

It pleases *the owner* because, easily installed on any boiler at a low cost, it burns the same quality coal you've been using at a saving in price of $5.00 to $7.00 per ton.

It pleases *the occupants* of the buildings because the rooms are kept at a uniform, comfortable temperature at all times.

It pleases *the fireman* because it makes his work easy, gets up steam in a hurry, gives long intervals between firings, and requires little attention, leaving more time for other duties.

It pleases *the architect* who specifies it because he knows that the L. J. Wing Mfg. Co., with its quarter of a century of experience in manufacturing combustion equipment, has developed this product to a high degree of perfection; and that Wing combustion engineers are qualified to handle the most difficult heating problems so that every Wing installation gives complete satisfaction.



*This applies to the East where small anthracite is the least expensive fuel available. For other territories, the Wing Combustion Control System is offered to burn such low-cost fuels as bituminous slack coal, coke breeze, lignite, etc.

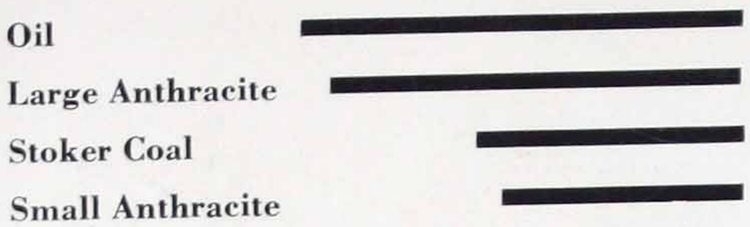
**Bulletin No. M-56**


11-32-3-M. New York, N. Y.

• A WING SYSTEM brings the advantages you've been looking for •

# A Wing System makes Small Anthracite the Ideal Fuel for Your Boiler

## It's Least Expensive




**Relative Costs of Various Fuels**
**(based on heating value)**

## It's More Reliable

**Heating reliability is nowhere of more importance than in greenhouses, where an hour's failure will cause the loss of thousands of dollars' worth of flowers. The extent to which greenhouses, such as that of Anthony Ruzika, Chatham, N. J., shown above, have standardized on Wing Systems is a great tribute to the "heat insurance" which they afford because they always give heat.**

Those of us who live in the East have a great advantage over the rest of the country, because we have at our back door, in the mountains of eastern Pennsylvania, a tremendous reserve of the finest fuel which can be used for heating purposes—Pennsylvania Anthracite—a clean fuel which burns without smudge or smoke, without caking, and without danger of explosion—a fuel which can be obtained here at a price far below that of any other heating medium.

When coal is taken from the anthracite mines, it is broken and sorted into sizes. The larger sizes (stove, egg, nut and pea coal), sell for up to $15 per ton. The smaller sizes (Buckwheat, Rice, Barley and Screenings), are just the same as the large coal in composition, quality and heating value. But, since they cannot be used in the ordinary heating system, they are priced from $5 to $7 per ton less than the larger sizes.

## You Get ALL the Heat Value of the Coal

When fed into a Wing-modernized boiler, however, these small anthracites, rich in heat units, produce an abundant flow of steam that varies only upon call from the automatic controls. Due to the thorough and efficient combustion effected by the Wing System, all the heating value of the coal is employed. Every particle is turned into heat, and nothing remains but the ashes. Unburned coal, a common source of waste, is rarely evident in the ashes from a Wing fire.

## It Gives More Heat

*Complaints of Inadequate Heating and Fluctuating Temperatures Disappear*

A Wing System increases the capacity of a heating boiler 10% to 35%. That's why Wing-equipped buildings warm up so quickly on the coldest mornings, and their rooms remain at a comfortable, even temperature all day long. When heat is needed in a hurry, the Wing System operator just speeds up his blower, driving air through the coal to whip up a hot fire. Equally important, too, are the automatic features of the Wing System which control the fire at all times, maintaining constantly uniform temperatures without under-heating or over-heating.

## It Demands Less Attention

*Your Fireman will be as Enthusiastic as Yourself about the Wing System*

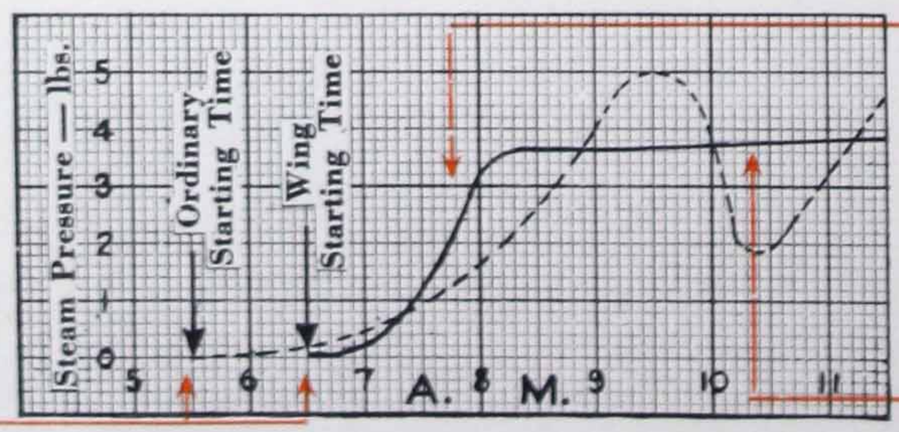
Firemen of Wing-equipped buildings find their work much easier. Small anthracite is clean and easy to handle. Steam can be raised so quickly that the fireman can usually delay his morning visit to the boiler room by an hour or more. Intervals between firings are long because a heavy charge can be fired and burned as needed. Cleanings are less frequent since ashes can accumulate without retarding combustion. Automatic controls eliminate the usual constant attention to the drafts. Thus, the fireman has more time for attention to other duties.

TYPICAL STEAM PRESSURE CHART

Wing operation ——————

Ordinary operation - - - - - - -

Wing firemen get an extra hour's sleep every morning.




Wing-equipped buildings are warmed up early, because they raise steam so quickly.

Uniform temperatures are easily maintained by automatic, constant regulation.

• You will want the money a WING SYSTEM will save •

# Wing Systems Usually Save Their Cost During the First Season's Operation

You will be surprised to learn how much a Wing System will reduce your coal bill, especially when compared with its low cost.

For example, suppose you are now burning 100 tons of stove coal per year. With a Wing System you can burn Rice coal and save approximately $5 to $7 on every ton. In other words, you can save, say, $600 per year, almost half of your fuel bill. This will doubtless be considerably more than the cost of the entire Wing installation. Thus you will show a profit even during the first heating season, a return of well over 100% on your investment. And, in ten years, you have saved over $5,000. Thousands of well-known Wing-equipped buildings have been doing just this for years!

The cost of operation is negligible. The variable speed, propeller-type Wing Blowers are so efficient that they use under 20c worth of electricity per ton of coal burned; and so carefully designed and ruggedly built that there is no upkeep expense for years.

| Small Anthracite | Large Anthracite |
|---|---|
|  |  |
| 12,000 - 14,000 heat units per lb. | 12,000 - 14,000 heat units per lb. |
| Costs $ 4 to $ 8 | Costs $10 to $14 |

**We guarantee you will burn no greater tonnage of small anthracite than of the large sizes; usually coal consumption is reduced thru more efficient combustion. Thus the figures in the paragraph to the left show *minimum* savings.**

## Equipment can be judged only by the results it produces

The following pages present the actual results of a few representative installations.

## Public Schools

### School Heated for $2.95 Per Day

South Side High School, Rockville Center, L. I. The year before the Wing System was installed, the coal bill was $1,897. Since then Anthracite Screenings have been burned at average cost of $837 per year. Building has cubical content of 1,750,000 cu. ft.; accommodates 1,000 pupils; 3 Wing-equipped firebox boilers serve vacuum heating system.

---

### City of East Orange, N. J.

36 Wing Units, installed in the schools of East Orange, saved $19,500 in their first year's operation by substituting Rice coal for stove coal. The entire installation cost $14,500, leaving a net saving, *for the first year*, of $5,000.

Over a period of nine years, the cost of repair parts for these 36 units has been less than $1.00 per unit per year.

### Over 1500 Public School Boilers are Wing-equipped

The following extracts are quoted from the Report of the State of New Jersey Commission to Investigate County and Municipal Taxation and Expenditures, dated March, 1932:

"Fuel costs in many districts can be reduced by using smaller sizes of coal. If districts ranging in size from that of Newark to that of Pennsgrove can heat for $45 per classroom, why need other districts, large and small, spend in excess of $100 per room?

"Since Buckwheat coal prices to schools range around $4 or $5 a ton and those of the large sizes, nut, egg and stove, are from $10 to $14, it is obvious that the use of the smaller sizes offers a substantial means of saving money. Evidence is given to indicate that not more but fewer tons of the small coal are used to meet the same heating requirements, and that the cost of installing blowers can in many cases be saved the first year."

The report lists heating costs of a large number of New Jersey school districts, and it is interesting to note that the average cost for the Wing-equipped districts in this list is *over 60% lower* than the average cost for the balance of the list.

### Newark, N. J.

Mr. C. I. Shirley, Business Manager of the Newark, N. J., Board of Education, states: "Practically all our 180 boilers are equipped with (Wing) forced draft, which not only permits the use of very cheap coal, but has greater efficiency and the added advantages of rapid steaming, greater uniformity of temperature, more heat when needed, and less attention by the janitors."

---

### Butler, N. J., Schools Heated at Annual Cost of $1.17 Per Pupil

In 1928, the public schools in Butler, N. J. (1,100 pupils) burned Egg coal at a cost of $2,637.47. Then a Wing System was installed to burn Rice coal. The average coal bill for the four succeeding seasons was $1,288.56, an annual saving of $1,348.91, or 51%. The Wing installation cost about $1,400.

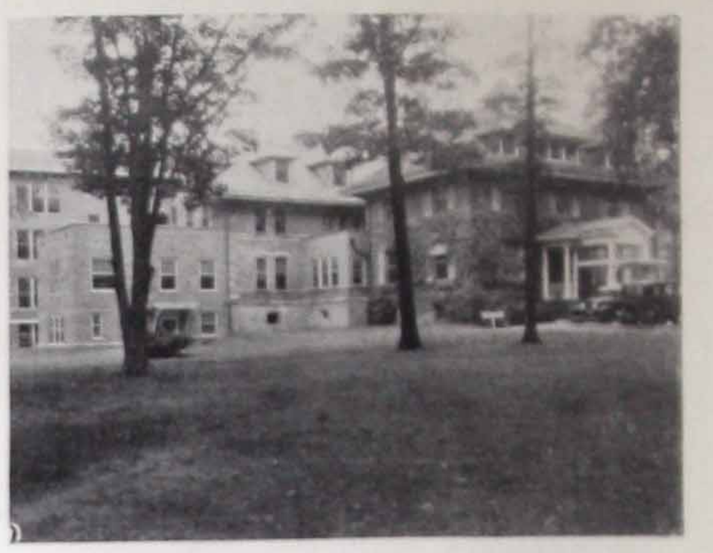
• The proof of a product is in the results it produces •

## College

The new gymnasium at Rutgers University, New Brunswick, N. J., is one of the most completely equipped gymnasiums in the country. As in many other buildings on the Rutgers campus, a Wing System was selected as the least expensive and most satisfactory combustion equipment available.

## Hospitals

Rahway Hospital, Rahway, N. J. This Wing equipped institution, which contains 88 beds, burns less than 300 tons of Barley coal per year. The success of Wing Systems in our many hospital installations, where silence is essential, demonstrates conclusively the quietness of their operation.



Nyack (N. Y.) Hospital. With a Wing System Rice coal is burned in the two boilers which furnish heat, hot water and steam. The differential in fuel cost, added to a 20% reduction below the former coal consumption of 1,080 tons per year, paid for the installation in 4 months.

## State School

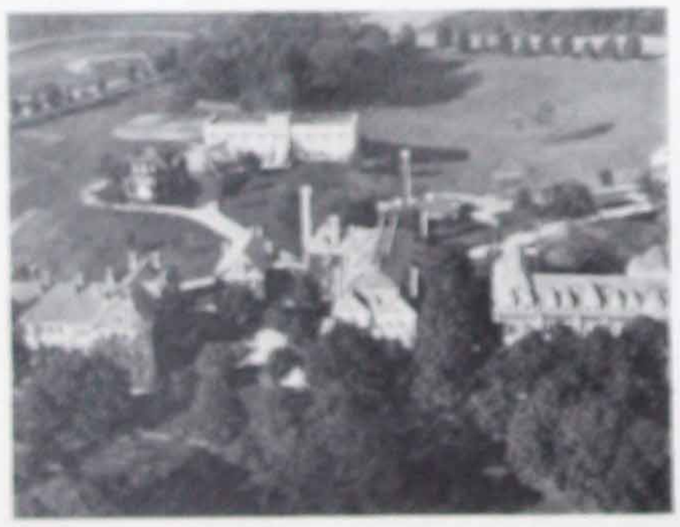
New Jersey State Normal School, Jersey City, N. J. For this beautiful example of modern educational building, the architect selected a Wing System. Recent Wing normal school installations include: New Paltz, N. Y. Plattsburgh, N. Y.; Oneonta, N. Y.; Geneseo, N. Y.

## Banks

The Montclair Trust Co., Montclair, N. J., formerly burned egg coal at an average annual cost of $1,675. The installation of a Wing System to burn Buckwheat coal reduced this cost to $1,096. Many banks have cut operating expenses in the same way.

After installing a Wing System, the Staten Island (N. Y.) Savings Bank was able to get more heat than ever before. They not only substituted Rice coal for the more expensive domestic coal previously burned, but also effected a big reduction in coal consumption.

## Private School



The boiler plant of Blair Academy, Blairstown, N. J., which serves the culinary departments and hot water supply, as well as heating the main buildings, formerly burned 1,900 tons of No. 1 Buckwheat coal per year. Their Wing System, installed to burn Rice coal, not only eliminated previous frequent complaints of dropping steam pressures and inadequate heating, but also reduced coal consumption 8%. This plus the differential in the price per ton, saved over $2,300 per year.

## Apartment Houses

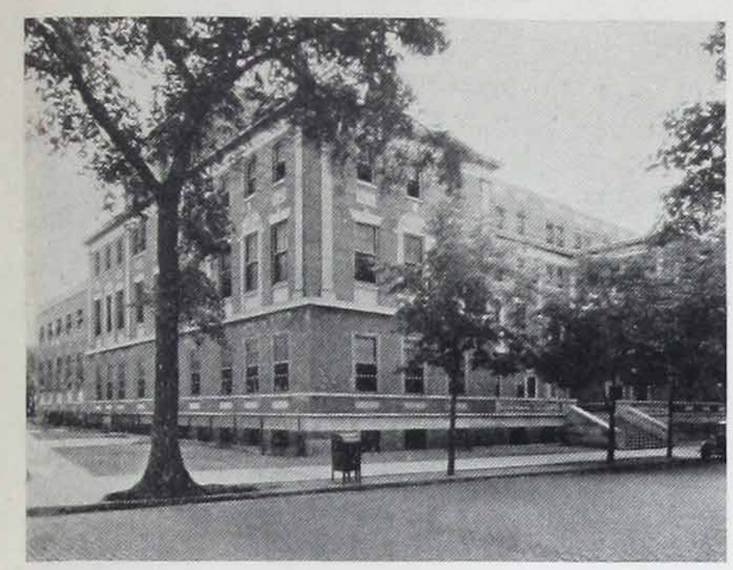
The owners of the apartment building at 610 Riverside Drive, New York City, write: "You installed Wing Systems on our boilers six years ago. Whereas our coal bill used to be over $6,000 per year, it is now about $3,500. Cost of installation was overcome in three months. We have practically no expense for repairs." Hundreds of apartment houses, large and small, in New York City alone, are equipped with the Wing System to keep heating costs in step with present rentals.

The three Vincent Astor apartment units, East End Avenue, New York City, the latest in urban residential buildings are, of course, Wing-equipped.

Nehring Brothers, operators of hundreds of apartment houses on New York City's West Side, write as follows: "During the past eight years we have installed over 100 Wing Systems in our apartments, both large and small, and have found them to be reliable, effective and productive of substantial coal savings."

## • These Representative Buildings Use WING SYSTEMS •

### Y.M.C.A.



Elizabeth (N. J.) Y. M. C. A. An abundance of hot water as well as heat is required by Y. M. C. A.'s and similar institutions for swimming pools, showers, etc. That is why so many of them, like that shown above, have equipped their boilers with Wing Systems.

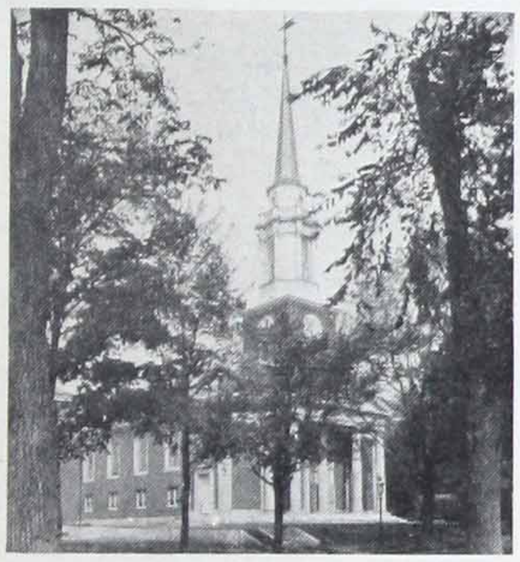
### Hotel

Alamac Hotel, Broadway at 71st Street, New York City. The hotel trade demands uniform, comfortable temperatures at all times. That is why the Alamac, like so many other hotels, uses a Wing System. Small anthracite is burned, in place of the expensive large sizes previously used.

### Store

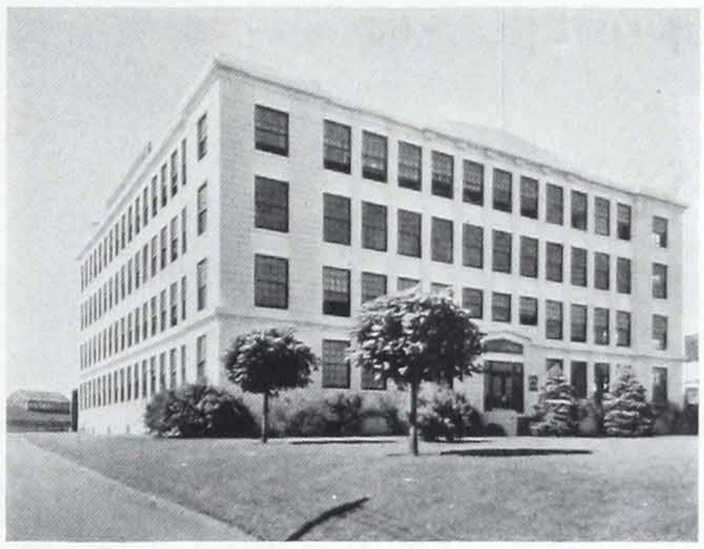

"Altman's" and "high quality" are almost synonymous. Altman's new suburban store in East Orange, N. J., is, of course, equipped with a Wing System in order that their customers may be warm and comfortable on the coldest days—at minimum cost.

### Church



Central Presbyterian Church, Montclair, N. J. This notice appeared in the annual report of the Board of Trustees: "The Wing Blowers which were installed in the furnaces two summers ago, enabling the use of Buckwheat coal, have reduced the cost of fuel from $2,100 to about $1,250."

### Factory

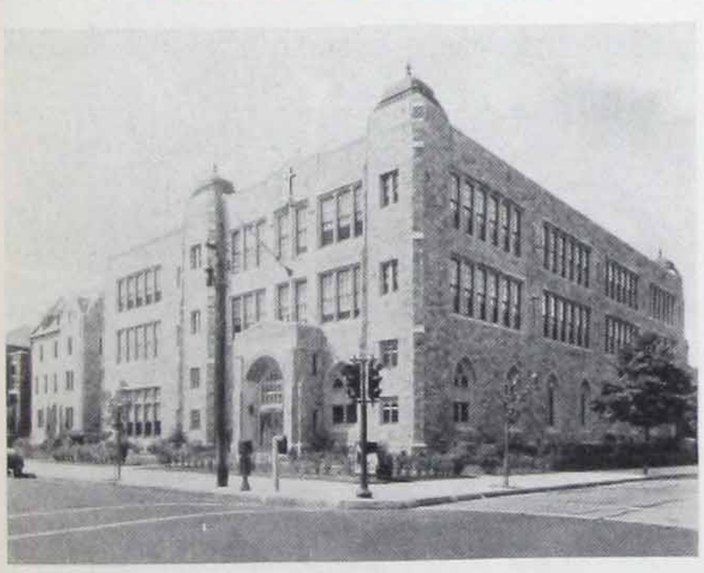


The makers of Scott's Emulsion use a Wing System to burn small anthracite coal in their modern factory building. Like hundreds of other efficient factory managements, they find that this gives them the lowest possible heating costs.

### Office Building

Otis Elevator Co., 11th Avenue, New York City. Dollars talk when office building management studies the heating problem. Competent Otis engineers investigated all possibilities thoroughly, then installed a Wing System to burn small anthracite. Ten years of service and still going strong!

### Catholic Institution



St. Leo's School, Irvington, N. J., burns Rice coal with a Wing System. The anthracite-burning territory is dotted with Wing-equipped Roman Catholic institutions such as Mt. St. Dominic's Academy, Caldwell, N. J.; St. Francis' Sanitarium, Denville, N. J.; St. Joseph's Hospital, Paterson, N. J.; St. Michael's Church, New York City, and numerous others.

### Tuxedo Park

Exclusive Tuxedo Park, N. Y., is "going Wing." Recent installations in this prominent community include the estate of Mr. George B. St. George, the Tuxedo Hospital, the Nurse's Home, and the new George F. Baker High School, shown above. The fine workmanship which makes itself so evident in Wing installations results in their popularity among quality purchasers.

### —and Finally

When the engineers of the country's largest anthracite coal mining organization, the Glen Alden Co., built their own office building in Scranton, Pa., they included a Wing System on their boiler so that they could heat with the least expensive size of their coal. Glen Alden engineers know combustion equipment from A to Z. Their choice is a high recommendation.

## • You, too, can SAVE with a WING SYSTEM •

# What IS a Wing System?

## Why Is It the Best for Your Heating Plant?

### What the Wing System Consists of—

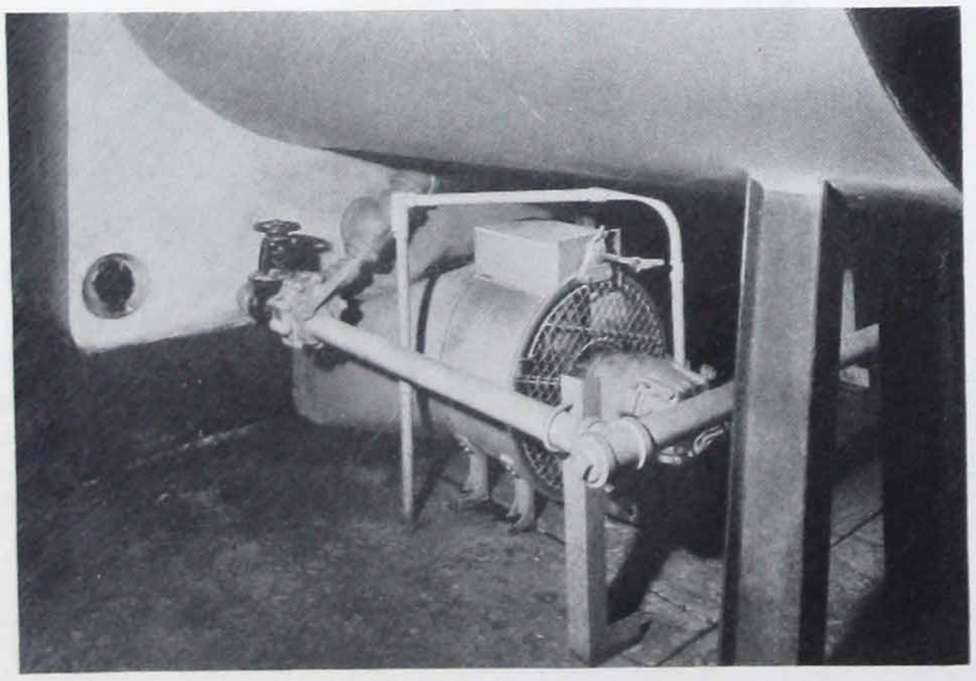
First, a motor-driven blower which delivers the proper amount of air to burn the small anthracite coal at maximum efficiency; secondly, a set of automatic controls which regulates the heat output from the boiler to give the desired temperature regardless of weather conditions; thirdly, when advisable, a set of air-diffusing grates, designed for burning small anthracite.

This combination completely modernizes any boiler, affording better heating with less effort and reduced operating expense at a cost so low that it is economically impractical to do without it.

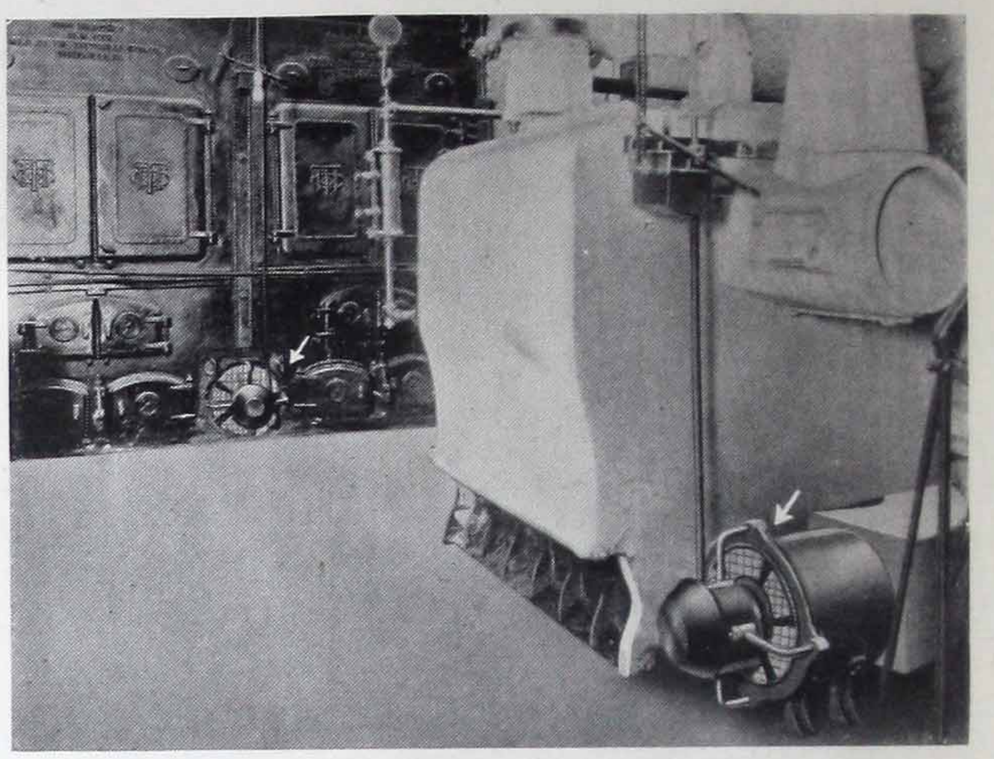
### Speed Variation Makes Draft Regulation Simple and Efficient

To get the most possible heat from every piece of coal, just the proper amount of air must be admitted to the fire. Too much or too little air causes improper combustion and wastes coal. Thus the air supply must be accurately controlled. But the control must be simple enough to enable the fireman to adjust it easily and convenient enough so that he will take the trouble to regulate it.

Wing Blowers have variable speed motors and speed regulating rheostats for draft control. The rheostats are conveniently located near the boiler front, enabling the fireman to regulate the draft with a simple turn of the rheostat handle while watching the fire. Thus it is apparent that speed control offers far more



**Wing Blower installed at rear of firebox boiler underneath the drum. Note that blower occupies waste space only. The controls, as shown on opposite page, are conveniently mounted on a handsome panel board at the front of the boiler.**



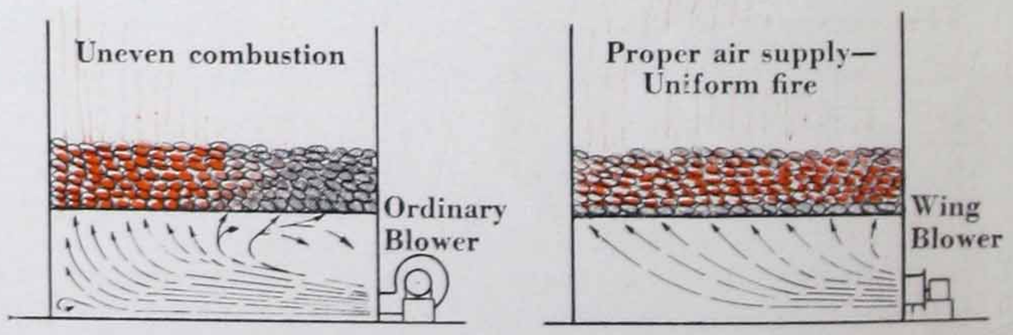
**Typical installations of Wing Systems on heating and hot water boilers in New York City apartment house.**

convenient and flexible regulation than the old-fashioned damper control which required the fireman to make several trips to the blower at the side or rear of the boiler, stoop over and loosen and tighten the fasteners to make necessary adjustments of the draft.

Furthermore, as the result of speed regulation, Wing Blowers operate most of the time at reduced speeds, making them even more quiet.

### Why Prominent Engineers Select Wing Blowers for Draft Service

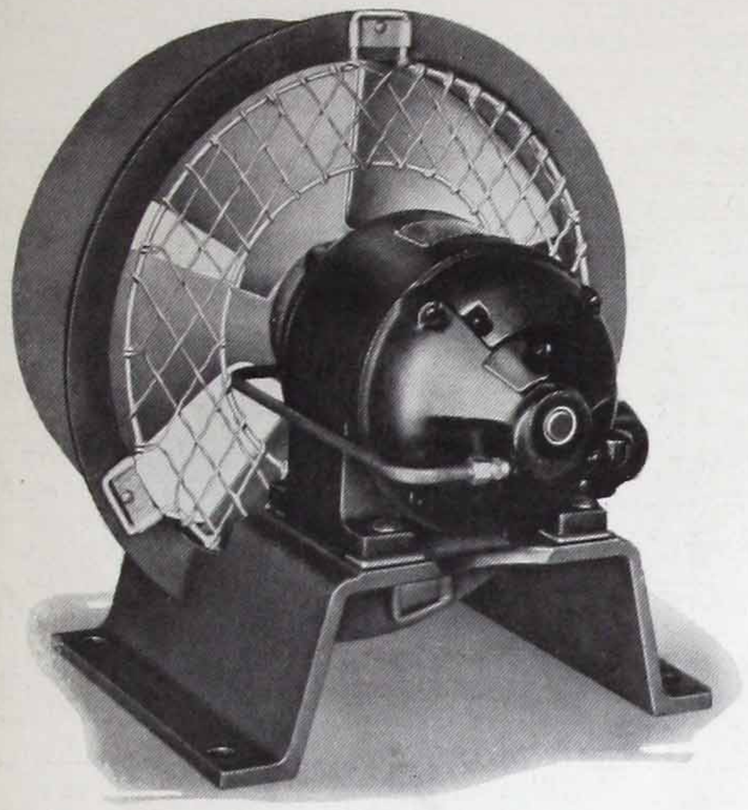
Wing Propeller-Type Blowers, specially designed for forced draft, offer the highest possible efficiency for the low static pressures required in this work. Thus motors of low horsepower are used with consequent low operating cost. Furthermore, the propeller-type blower has large air passages, and a large discharge area, so that the velocity of the air is very low. For this reason, Wing Blowers operate very quietly and distribute the air evenly under the grates, as shown in the drawing below.




**Low-velocity air delivery of Wing Blower distributes air pressure evenly under the grates, assuring complete combustion of all coal.**

• Keep Your Building Warm and Comfortable . . . at Minimum Cost •

# Wing Blowers are Built for *Heavy Duty*



**No effort is spared in making Wing Blowers strong enough at every point to give many years' service at negligible expense. There are no heavy moving parts to cause trouble, shut-downs, and repairs.**

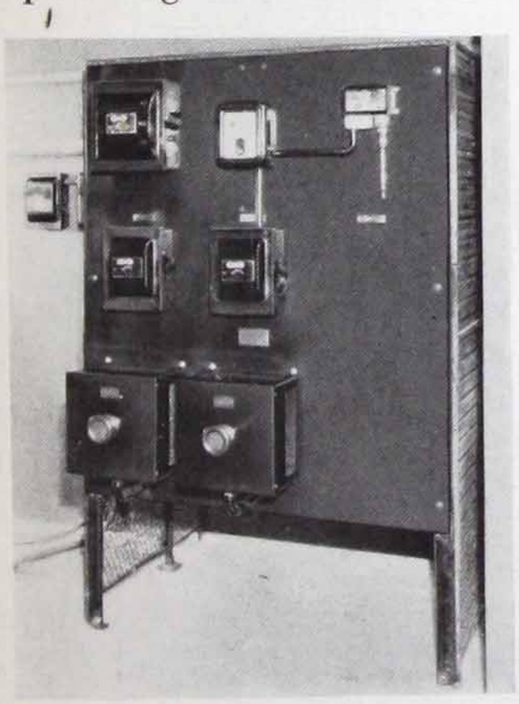
Look at the picture of the Wing Blower. Notice its sturdy, rugged appearance. Fan casing and motor bracket are strong iron castings. The motor is rigidly bolted to the bracket. The fan is a single casting of tough, non-corrosive, aluminum alloy. It is mounted directly on the end of the motor shaft, so that there is no coupling or belting to cause trouble, and is protected by a safety screen to prevent damage to the fan or injury to the operators.

## All Dust, Dirt and Foreign Matter are Sealed Out . . .

The atmosphere of the boiler room always contains coal dust and ashes which are deposited on the motor, as the fan draws the air over it. If this matter enters the motor, it is deposited on the commutators, brushes, bearings and windings, causing rapid deterioration, followed by burn-outs, shut-downs and expensive repairs. Wing Blowers are furnished with fully enclosed, dust-proof motors in order to keep this dust and dirt out. That is why the motors of Wing Blowers last indefinitely, while the open, or semi-enclosed motors ordinarily supplied, must be renewed.

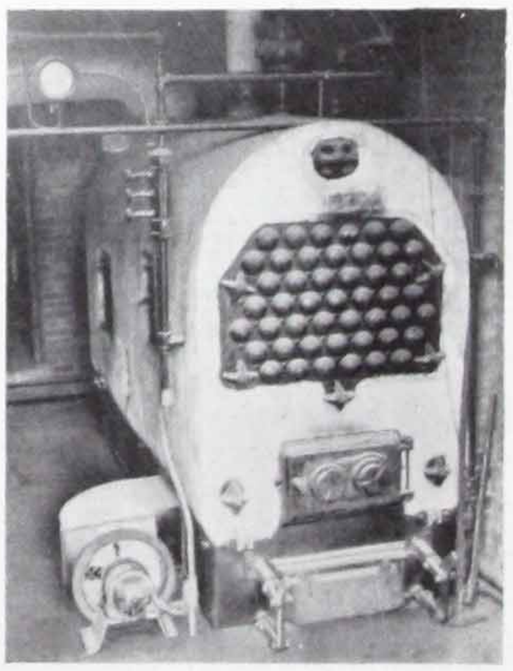
## The Wing Automatic Controls which give Uniform Heat without Attention

Wing forced draft systems are automatically controlled by means of an automatic regulator. By a simple hand adjustment, this regulator is set for the operating condition which will most satisfactorily keep the building comfortably warm. From then on, the operation is entirely automatic. When the pressure or temperature rises above the point for which the regulator is set, the blower stops. When it drops below this point, the blower starts up again, without attention, and no current is wasted.



## This is How Wing Blowers are easily and quickly Installed on any Boiler

The installation of a Wing System is a very simple matter. The blower is bolted to the floor beside or behind the boiler in the most convenient location, occupying little space, and connected to the ashpit by means of a heavy sheet metal duct. With brick-set boilers, the blower casing may be masoned directly into the boiler wall. The rheostat and the automatic controls are mounted on a panel board conveniently located at front of boiler. Every job presents a workmanlike appearance.



## Architects and Engineers

The services of our combustion engineers are at your disposal at any time, without obligation, to assist you in fuel selection, heating plant layout and preparation of specifications.

## Modernize Your Boiler Now with a Wing System!

Look at a couple of the Wing installations in your vicinity. See for yourself how they improve heating service; how they reduce the fireman's work; how they cut coal bills in half. Then let a Wing engineer analyze your problem—and tell you what size of small anthracite you should burn, and what it will cost to install a Wing System on your boiler.
*You will be surprised to learn how little it costs to save so much!*


**General Offices**
**154 W. 14th St., New York, N.Y.**

**L. J. Wing Mfg. Co.**

**Factory**
**9 Victoria St., Newark, N. J.**

# Capacities and Dimensions of Wing Blowers

## 1700 RPM Units (*Direct current and 60 cycle alternating current*)

| Blower Size | Code Word | Motor H. P. | Cubic Feet per Minute at Various Static Pressures | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | .10″ | .15″ | .20″ | .25″ | .50″ | .75″ | 1.00″ |
| 08S-EM-17 | OCTEM | 1/20 | 255 | 215 | 140 | 95 | | | |
| 1S-EM-17 | ONSEM | 1/8 | 1100 | 1050 | 950 | 850 | 300 | | |
| 3S-EM-17 | TISEM | 1/4 | 1600 | 1550 | 1500 | 1450 | 750 | 450 | |
| 5S-EM-17 | FUSEM | 1/3 | 2550 | 2450 | 2350 | 2250 | 1450 | 1100 | 800 |
| 7S-EM-17 | SESEM | 3/4 | 3300 | 3250 | 3200 | 3150 | 2800 | 2300 | 1500 |
| 9S-EM-17 | NOSEM | 1 | 4350 | 4250 | 4150 | 4050 | 3500 | 2750 | 2000 |
| 12S-EM-17 | DESEM | 1 1/2 | 6300 | 6200 | 6100 | 6000 | 5500 | 4900 | 4100 |
| 15S-EM-17 | CASEM | 2 | 8400 | 8300 | 8200 | 8100 | 7500 | 6800 | 6100 |

**The blowers listed above are those most commonly used with heating boilers burning small anthracite or bituminous coal. Blowers may also be furnished to operate against higher static pressures. Also, higher speed units and units for odd frequencies can be supplied.**

## Intermediate Speed Units (*Direct current only*)

| Size Blower | Code Word | r.p.m. | Motor H.P | Cubic Feet per Minute at Various Static Pressures | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1/2″ | 3/4″ | 1″ | 1 1/4″ | 1 1/2″ | 1 3/4″ | 2″ |
| 3S-EM-20 | TISTO | 2000 | 3/8 | 1000 | 750 | | | | | |
| 3S-EM-22 | TISIT | 2200 | 1/2 | 1400 | 950 | 700 | | | | |
| 3S-EM-25 | TISAV | 2500 | 3/4 | 2000 | 1500 | 1100 | | | | |
| 5S-EM-20 | FUSTO | 2000 | 3/4 | 2000 | 1550 | 1250 | | | | |
| 5S-EM-22 | FUSIT | 2200 | 3/4 | 2300 | 1950 | 1600 | | | | |
| 5S-EM-25 | FUSAV | 2500 | 1 | 2850 | 2500 | 2100 | | | | |
| 7S-EM-20 | SESTO | 2000 | 1 | 3400 | 3000 | 2500 | 1750 | | | |
| 7S-EM-22 | SESIT | 2200 | 1 | 3850 | 3550 | 3200 | 2650 | | | |
| 7S-EM-25 | SESAV | 2500 | 1 1/2 | 4500 | 4250 | 3950 | 3600 | 3150 | | |
| 9S-EM-20 | NOSTO | 2000 | 1 1/2 | 4200 | 3600 | 2950 | 2350 | | | |
| 9S-EM-22 | NOSIT | 2200 | 2 | 4800 | 4300 | 3750 | 3250 | 2700 | | |
| 9S-EM-25 | NOSAV | 2500 | 3 | 5650 | 5250 | 4750 | 4250 | 3850 | 3350 | 2850 |
| 12S-EM-20 | DESTO | 2000 | 2 | 6600 | 6100 | 5600 | 5000 | | | |
| 12S-EM-22 | DESIT | 2200 | 3 | 7400 | 7000 | 6600 | 6200 | 5600 | 5100 | |
| 12S-EM-25 | DESAV | 2500 | 4 | 8450 | 8150 | 7850 | 7500 | 7100 | 6600 | 6100 |
| 15S-EM-20 | CASTO | 2000 | 3 | 8750 | 8400 | 7900 | 7200 | 6400 | | |
| 15S-EM-22 | CASIT | 2200 | 5 | 10000 | 9650 | 9200 | 8500 | 8000 | 7300 | 6500 |
| 15S-EM-25 | CASVA | 2500 | 5 | 11700 | 11300 | 10800 | 10250 | 9750 | 9200 | |

**Blowers can also be furnished to operate against higher static pressures, and at higher speeds than those shown above.**

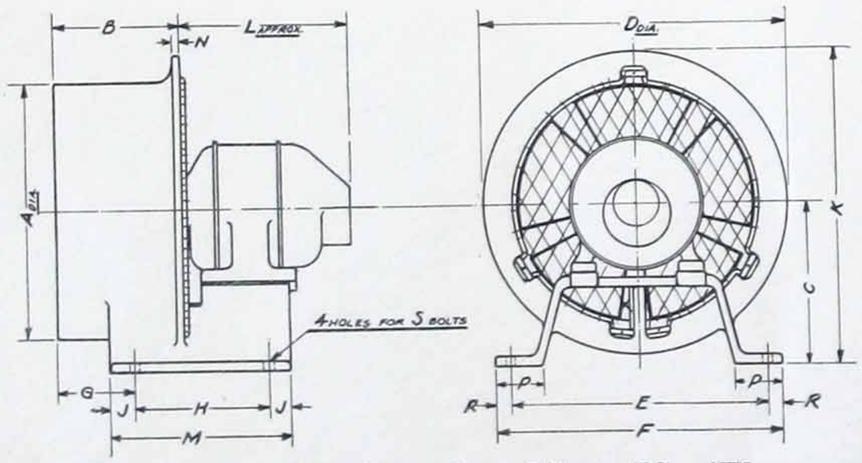



**Fig. 1. Dimension drawing, sizes 1S to 7S. (These units can also be furnished with long casings, as in Fig. 2.)**

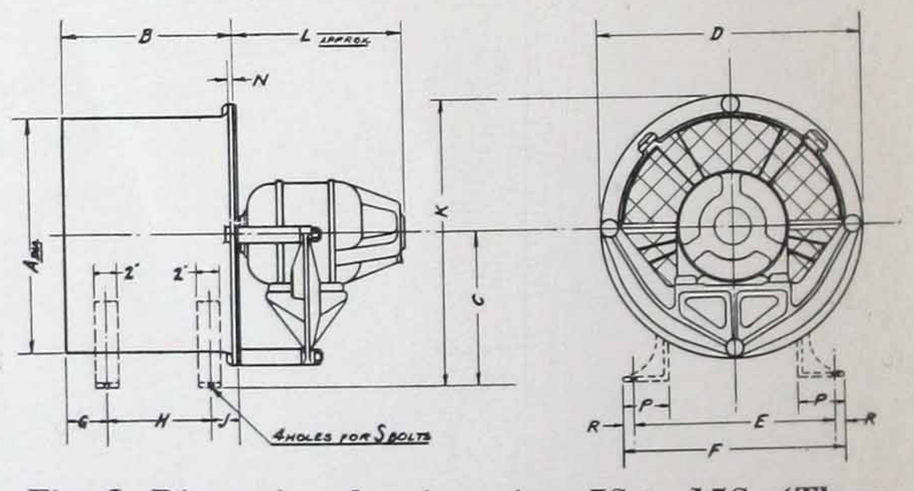



**Fig. 2. Dimension drawing, sizes 7S to 15S. (These units are furnished with or without mounting feet.)**

| SIZE | FIG. | A | B | C | D | E | F | G | H | J | K | L | M | N | P | R | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1S-EM-17 | 1 | 11 7/8 | 6 | 7 1/2 | 14 3/8 | 12 | 13 1/2 | 4 | 5 | 1 1/2 | 14 11/16 | 8 7/8 | 8 | 3/8 | 2 1/8 | 3/4 | 1/2 |
| 3S-EM-17 | 1 | 14 1/8 | 6 | 8 7/8 | 16 3/4 | 13 1/2 | 15 | 4 7/8 | 5 | 1 1/2 | 17 1/4 | 9 | 8 | 3/8 | 2 1/8 | 3/4 | 1/2 |
| 5S-EM-17 | 1 | 16 1/4 | 7 1/2 | 9 13/16 | 18 5/8 | 14 1/4 | 16 | 5 | 8 5/8 | 1 1/2 | 19 1/8 | 10 3/4 | 11 5/8 | 3/8 | 2 1/4 | 7/8 | 5/8 |
| 7S-EM-17 | 1 | 18 1/8 | 7 1/2 | 10 1/2 | 20 | 15 | 16 3/4 | 5 | 8 5/8 | 1 1/2 | 20 1/2 | 13 | 11 5/8 | 7/16 | 2 1/4 | 7/8 | 5/8 |
| 7S-EM-17 | 2 | 18 1/8 | 15 | 12 1/2 | 23 | 16 | 17 3/4 | 3 1/2 | 7 1/2 | 4 | 24 | 13 3/8 | — | 7/16 | 4 | 7/8 | 5/8 |
| 9S-EM-17 | 2 | 20 3/4 | 15 | 13 7/16 | 23 | 17 7/8 | 19 5/8 | 3 1/2 | 9 | 2 1/2 | 24 15/16 | 14 | — | 1/2 | 4 | 7/8 | 5/8 |
| 12S-EM-17 | 2 | 23 1/2 | 15 | 14 7/16 | 26 5/8 | 19 3/4 | 21 1/2 | 3 1/2 | 8 1/4 | 3 1/4 | 27 3/4 | 14 3/4 | — | 1/2 | 4 | 7/8 | 5/8 |
| 15S-EM-17 | 2 | 26 7/16 | 18 | 15 1/2 | 29 1/2 | 21 7/8 | 23 5/8 | 3 1/2 | 10 3/4 | 3 3/4 | 30 1/4 | 15 3/4 | — | 1/2 | 4 | 7/8 | 5/8 |

## For Residences

To make better heating at lower fuel cost available for the home owner, the Wing 08 Automatic Forced Draft System has been designed to burn Buckwheat coal in the domestic furnace. This system affords thermostatically controlled heating service with half the work, and at half the cost, keeping the home warm and comfortable at all times without attention.

The cost of modernizing any domestic furnace with a Wing System is so reasonable that it is rapidly paid for out of savings in a short time.

The Wing 08 Automatic Forced Draft System consists of the 08S-EM-17 Wing Blower and a full set of automatic controls including room thermostat and furnace-stat.

# A WING COMBUSTION CONTROL SYSTEM

## will give you

# BETTER HEATING

## *– at minimum cost*

▼

## OTHER WING PRODUCTS

**Turbine Blowers**

**Fog Eliminators**

**Unit Heaters**

**Unit Coolers**

**Exhausters**

**Turbines**

**Fans**

▼